

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Jeremy John Carroll) On Appeal to the
) Board of Appeals
Patent Application No.: 10/632,133)
) Group Art Unit: 2625
Filed: 30 July 2003)
) Examiner: Nguyen, A. H.,X
)
For: "Print Job Assignment System in) Date: May 8, 2008
a Reconfigurable Printing)
System")

BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final rejection, dated January 10, 2008, for the above identified patent application. Appellants submit that this Appeal Brief is being timely filed on May 12, 2008, because the Notice of Appeal was filed on March 10, 2008. Please charge the Appeal Brief fee of \$510.00 to deposit account no. 08-2025.

REAL PARTY IN INTEREST

The real party in interest to the present application is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned

affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC

RELATED APPEALS AND INTERFERENCES

Appellants submit that there are no other prior and pending appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-8 and 11-17 are present in the application. Claims 9 and 10 have been canceled without prejudice. Claims 1-8 and 11-17 are the subject of this Appeal and are reproduced in the accompanying Claims appendix.

STATUS OF AMENDMENTS

A minor amendments to the specification and a minor amendment to claim 8 was made on May 7, 2008. These amendments have not yet been entered by the Examiner, but claim 8 as set forth herein assumes that the amendment will be entered as not affecting the scope of the claim.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to a system and a method that facilitates the assignment of a print job in a printing system that has one or more printers (Fig 1, elements 10, 11, 12) connected to a computer-based printing system (Fig 1, element 1) so that the printers economically match the requirements of a print job generated by the printing system. (see Fig 1 and p. 3, ll. 5-14; p. 8, l. 13 through p. 21, l. 5) Each printer (10,11,12) has a plurality of different printing configurations and each computer (Fig 1, elements 2,3,4) is capable of generating at least one print job. (p. 3, ll. 5-14; p. 8, l. 13 through p. 9, l. 4)

Each print job has corresponding printing requirements and each printing configuration being capable of satisfying one or more printing requirements. (p. 3, ll. 5-14; p. 8, l. 13 through p. 11, l. 20) A print job, once created, is notionally assigned across one or more of the printers (Fig 1, elements 10,11,12) in such a way that the printers have printing configurations that are capable of satisfying the printing requirements. (p. 3, ll. 16-21; p. 8, l. 13 through p. 14, l. 20) The cost for printing the print jobs is then calculated for that notional assignment. (p. 3, ll. 23-24; p. 8, l. 13 through p. 16, l. 14) This calculation is repeated for different notional assignments, and then a preferred assignment of the, or each, print job is selected according to the calculated costs. (p. 3, ll. 26-30; p. 8, l. 13 through p. 16, l. 14)

Claim 1 is directed to a method of assigning a print job in a printing system, the printing system (Fig 1, element 1; p. 3, ll. 5-14; p. 8, l. 13 through p. 21, l. 5) comprising at least one printer (10, 11, 12) and at least one computer (2, 3, 4) connected to said printer(s) (p. 3, ll. 5-14; p. 8, l. 13 through p. 21, l. 5), wherein the or each printer has a plurality of different printing configurations (p. 1, ll. 10- 19; p. 3, ll. 5-14; p. 8, l. 13 through p. 9, l. 4) and the or each computer is capable of generating at least one print job, said print job(s) having corresponding printing requirements, each printing configuration being capable of satisfying one or more printing requirements (p. 3, ll. 5-14; p. 8, l. 13 through p. 11, l. 20), the method comprising the steps of:

- i) creating one or more print jobs (p. 3, l. 16);
- ii) notionally assigning the or each print job created in step i) as a notional print job assignment across one or more of the printers in such a way that the one or more of the printers have printing configurations that are capable of satisfying the printing requirements of a corresponding print job (p. 3, ll. 18-21; p. 8, l. 13 through p. 14, l. 20);
- iii) calculating a cost for printing the or each print job according to said notional print job assignment (p. 3, ll. 13 and 24; p. 8, l. 13 through p. 14, l. 20);

iv) repeating steps ii) and iii) at least once for a at least one different notional print job assignment (p. 3, ll. 26 and 27; p. 8, l. 13 through p. 16, l. 14); and

v) selecting from the notional print job assignments according to the calculated costs a preferred assignment of the or each print job (p. 3, ll. 29 and 30; p. 8, l. 13 through p. 16, l. 14).

Claim 11 is nearly identical to claim 1, but recites “a plurality of printers” as opposed to “at least one printer”. The “at least one printer” as recited by claim 1 and the “plurality of printers” as recited by claim 11 find support in the very same elements, namely printers 10, 11, 12 shown in Figure 1 and discussed, for example, at p. 8, ll. 13-19.

Claim 8 is directed to a printing system (Fig 1, element 1; p. 3, ll. 5-14; p. 8, l. 13 through p. 21, l. 5), the printing system comprising at a plurality of printers (Fig 1, elements 10, 11, 12) and at least one computer (Fig 1, elements 2, 3, 4) connected to said printers (p. 3, ll. 5-14; p. 8, l. 13 through p. 21, l. 5), each printer of said plurality of printers having a plurality of different printing configurations (p. 1, ll. 10- 19; p. 3, ll. 5-14; p. 8, l. 13 through p. 9, l. 4) and the at least one computer being capable of generating at least one print job, said at least one print job having corresponding printing requirements, the at least one printing configuration being capable of satisfying one or more printing requirements, wherein the printing system is arranged to calculate a cost for printing the at least one print job according to different notional assignments of the at least one print job across one or more of the printers in such a way that said printers have printing configurations that are capable of satisfying the printing requirements (p. 3, ll. 5-14; p. 8, l. 13 through p. 11, l. 20), and to select according to the calculated costs a preferred assignment of the or each print job; and wherein the at each printer has a pre-existing printing configuration and said calculation of the cost includes an assessment of the cost of any needed changes from the pre-existing printing configurations to

changed printing configurations so that the printers can satisfy the printing requirements (p. 3, ll. 5-14; p. 8, l. 13 through p. 11, l. 20).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Issue 1: Whether Claims 1-1 and 11-17 are patentable under 35 U.S.C. 103(a) in view of Owa, U.S. Patent Publication No. 2001/0043357, (hereinafter “Owa”) alone?

ARGUMENT

Issue 1: Whether Claims 1-8 and 11-17 are patentable under 35 U.S.C. 103(a) in view of Owa, U.S. Patent Publication No. 2001/0043357, (hereinafter “Owa”) alone?

In the final Office Action of January 10, 2008, the Examiner rejects Claims 1-8 and 11- 17 under 35 U.S.C. 103(a) as obvious in view of Owa alone. The Examiner admits that the claims are not fully anticipated by Owa. Appellant agrees that Owa does not anticipate the rejected claims (see the paragraph bridging pages 4 and 5 of the Final Rejection) and disagrees that it would have been obvious to modify Owa in such a way so as to anticipate Appellant’s claims.

Indeed, when one reads the Final Rejection, the terminology used by the Examiner up until paragraph bridging pages 4 and 5 of the Final Rejection would lead a reader to believe that Owa anticipates Appellant’s claims. Of course “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP 2131 quoting *Verdegaal Bros. V. Union Oil Co, of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Examiner is also reminded that “[the] identical invention must be shown in as complete detail as is contained in the ... claim.” MPEP 2131 quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Appellants submit that the Examiner has not shown that Owa teaches each and every element as set forth in the Examiner’s analysis up to the paragraph bridging pages 4 and 5 of the Final Rejection. In particular:

Claims 1 and 11

Appellants submit that the Examiner has not shown that Owa discloses, suggests or teaches, *inter alia*, the following features recited by Claims 1 and 11 of the present application:

First, claims 1 and 11 each recite “notionally assigning the or each print job created in step i) as a notional print job assignment across one or more of the printers in such a way that the one or more of the printers have printing configurations that are capable of satisfying the printing requirements of a corresponding print job” and “calculating a cost for printing each print job according to said notional print job assignment”.

Owa goes through an assignment of points to figure out which printer is best suited to satisfy the user’s needs. See paragraph 0069 of Owa. As the Examiner admits in the paragraph bridging pages 5 and 6 of the Final Rejection, that printer might well be the fastest printer (but not necessarily the most economical option since Owa pays no attention to costs).

The bottom line is that Owa can determine whether a printer can handle a print job and while Owa assigns points when doing this analysis, Owa is silent on

“calculating a cost for printing each print job according to said notional print job assignment” as required by claims 1 and 11. Owa’s points are not cost related. Rather they are related to whether or not the printer can handle the job at all, not whether it can handle the job in a cost efficient manner.

Owa is also silent with respect to “selecting from the notional print job assignments according to the calculated costs a preferred assignment of the or each print job” as claimed by claims 1 and 11.

On the issue of whether it is obvious to modify Owa, the Examiner makes two statements (see pages 4 and 5 of the Final Rejection):

- (1) “It is noted that Owa does not use the term cost, it is obvious to a person with ordinary skill in the art that the score is equivalent to the cost, because the score is a value giving assuring a print job is print by a particular printer by comparing the print requirement to the print configuration.” [sic] and
- (2) “In short, the score giving to the printer obvious is a cost of printing the print job by the printer.” [sic]

Owa’s “score” is not “equivalent” to cost since Owa’s point system only determines which printer(s) can handle the print job. Owa expresses no concern whatsoever regarding what the cost of using various printer might be. The Examiner tries to equate the ability to handle a print job with the cost of handling a print job. These are different problems solved in different ways.

Moreover, the Examiner’s assertions are not prior art. His comments on this issue are, if anything, an *ex post facto* observation which postdates the filing date of this application. If there were relevant prior art on this topic one would think that the Examiner would have cited such art as opposed to trying to finesse the issue away by merely stating that

points and cost are equivalent terms to those skilled in the art. If those terms are truly equivalents to those skilled in the art as the Examiner states, then there should be ample evidence of such alleged equivalence in the prior art. The evidentiary silence on this issue speaks more loudly than the Examiner's *ex post facto* assertion to contrary.

Claims 2 and 12

Claims 2 and 12 recite "in which the or each printer has a pre-existing printing configuration, and said calculation of the cost includes an assessment of the cost of any needed changes from the pre-existing configuration(s) to changed configuration(s) so that the printer(s) can satisfy the printing requirements".

The Examiner addresses this limitation on page 5 of the Final Rejection where the Examiner talks about the printer "most satisfying the conditions desired by user 2". Interesting discussion, but it has absolutely nothing to do with the language of claims 2 and 12 quoted above.

Indeed, the examiner implies that printer speed is a printer configuration issue. It would seem that in the context of the present application, that print speed is akin to a "non-configurable feature" such as black and white laser printing capability or ink-jet color printing capability mentioned in paragraph 0042 of the present application as opposed something which is configurable such as "a paper tray which can be loaded with either A4 size or A3 size paper".

Anyway, Owa not only does not meet the recited claim language, he does not suggest allocating points on basis recited by these claims. So The Examiner's obviousness argument falls apart even further for these claims.

Claims 3 and 13

Claims 3 and 13 recite “in which said needed changes include manual reconfiguration of at least one printer, said calculated cost then including an assessment of the cost of such a manual reconfiguration”.

The Examiner addresses this limitation on pages 5 and 6 of the Final Rejection where the Examiner talks about the user manually entering information regarding the printer. Interesting discussion, but it has absolutely nothing to do with the language of claims 3 and 13 quoted above.

The Examiner also mentions “said calculated cost” as if Owa teaches same that, but then the Examiner has already admitted that Owa does not teach anything about calculated costs. Nor does the Examiner point out where Owa’s point system considers manual reconfiguration of a printer. Manually entering information about a printer into your computer is not the same thing as reconfiguring the printer. So even if the Examiner obviousness argument regarding points and cost made sense in the abstract (it doesn’t), it makes even less sense in the context of this rejection.

Anyway, Owa not only does not meet the recited claim language, he does not suggest allocating points on basis recited by these claims. So The Examiner’s obviousness argument makes even less sense for claims 3 and 13.

Claims 4 and 14

Claims 4 and 14 recite “in which the preferred assignment of the printing job requires a manual reconfiguration of at least one printer, in which the printing system after selection of said preferred assignment then presents to a user of the printing system instructions for manually reconfiguring said printer(s)”.

The Examiner addresses this limitation on page 6 of the Final Rejection where the Examiner talks about Owa’s system issuing a warning when a suitable printer is not available. See paragraph 0058 of Owa and block S9 of Owa’s Figure 6. Another interesting discussion, but it has absolutely nothing to do with the language of claims 4 and 14 quoted above. Owa bails out, after providing some sort of error message to the user at block S9. Owa does not teach presenting “to a user of the printing system instructions for manually reconfiguring said printer(s)” as claimed.

Claims 5 and 15

Claims 5 and 15 recite “in which the given print job is assigned to more than one printer, and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or otherwise combining material printed from the printers.”.

The Examiner addresses this limitation on pages 6 and 7 of the Final Rejection where the Examiner talks about Owa’s system providing status information. See paragraph 0058 of Owa. Interesting discussion, but it has absolutely nothing to do with the language of claims 5 and 15 quoted above. Owa bails out, after providing some sort of error message. Owa does not teach presenting “to a user of the printing system instructions” as claimed. Status information is simply not the same thing as instructional information.

Claims 6 and 16

Claims 6 and 16 recite “in which the print job has a plurality of different parts, each part having different printing requirements, and the print job is split according to those different requirements”.

The Examiner addresses this limitation on page 7 of the Final Rejection where the Examiner talks about Owa’s system setting through the steps shown in Figure 6. See paragraph 0064 of Owa. These steps help determine whether some printing specification is merely desirable or required. Note the discussion about the choice of paper sizes (B4 versus A4). Again, this is an interesting discussion, but it has absolutely nothing to do with the language of claims 6 and 16 quoted above. Owa does not teach that “the print job has a plurality of different parts, each part having different printing requirements, and the print job is split according to those different requirements” as claimed. Selecting a second choice for the paper size is not the same thing as splitting a print job as claimed.

Claims 7 and 17

Claims 7 and 17 recite that “the calculated cost is an economic cost”.

The Examiner addresses this limitation on page 7 of the Final Rejection where the Examiner talks about Owa’s “calculated cost”. But as the Examiner admits, Owa has no such teaching. So the Examiner’s discussion misses the point. Moreover, the Appellant disagrees with the Examiner’s assertion that Owa’s finding the printer with “the highest

score” anticipates this limitation. The “highest score” has nothing to do with either “cost” or “economic cost”.

Claim 8

Claim 8 recites “wherein the printing system is arranged to calculate a cost for printing the at least one print job according to different notional assignments of the at least one print job across one or more of the printers in such a way that said printers have printing configurations that are capable of satisfying the printing requirements, and to select according to the calculated costs a preferred assignment of the or each print job; and wherein each printer has a pre-existing printing configuration and said calculation of the cost includes an assessment of the cost of any needed changes from the pre-existing printing configurations to changed printing configurations so that the printers can satisfy the printing requirements”.

Thus claim 8 also recites limitations concerning the “cost for printing” and the selection of “according to the calculated costs a preferred assignment of the or each print job”. As discussed above, particularly with respect to the rejections of claims 1 and 11, Owa is silent on making any cost-based determinations and the Examiner’s assertion that those skilled in the art would have realized that Owa’s point system is the equivalent of costs is utterly without merit in the absence of any evidence on that point.

Of course, 35 U.S.C. § 103 “forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The Court stated that obvious analysis “should be made explicit.” *Id.* at 1740-41, citing *In re Kahn*, 441 F.3d 977,988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). For the reasons stated above, the Examiner has failed to provide the required articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.

The rejections made by the Examiner are supported only conclusory statements which, for the most part, do not even deal with the claim language he rejects.

* * *

Conclusion

For the extensive reasons advanced above, Appellants respectfully contend that each claim is patentable. Therefore, reversal of all rejections and objections is courteously solicited.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 08-2025. In particular, if this Appeal Brief is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 08-2025.

I hereby certify that this correspondence is being electronically filed with the United States Patent and Trademark Office on

May 8, 2008
(Date of Transmission)

Stacey Dawson
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Claims Appendix;
Evidence Appendix;
Related Proceedings Appendix

1. A method of assigning a print job in a printing system, the printing system comprising at least one printer and at least one computer connected to said printer(s), wherein the or each printer has a plurality of different printing configurations and the or each computer is capable of generating at least one print job, said print job(s) having corresponding printing requirements, each printing configuration being capable of satisfying one or more printing requirements, the method comprising the steps of:

- i) creating one or more print jobs;
- ii) notionally assigning the or each print job created in step i) as a notional print job assignment across one or more of the printers in such a way that the one or more of the printers have printing configurations that are capable of satisfying the printing requirements of a corresponding print job;
- iii) calculating a cost for printing the or each print job according to said notional print job assignment;
- iv) repeating steps ii) and iii) at least once for a at least one different notional print job assignment; and
- v) selecting from the notional print job assignments according to the calculated costs a preferred assignment of the or each print job.

2. A method as claimed in claim 1, in which the or each printer has a pre-existing printing configuration, and said calculation of the cost includes an assessment of the cost of any needed changes from the pre-existing configuration(s) to changed

configuration(s) so that the printer(s) can satisfy the printing requirements.

3. A method as claimed in claim 2, in which said needed changes include manual reconfiguration of at least one printer, said calculated cost then including an assessment of the cost of such a manual reconfiguration.

4. A method as claimed in claim 3, in which the preferred assignment of the printing job requires a manual reconfiguration of at least one printer, in which the printing system after selection of said preferred assignment then presents to a user of the printing system instructions for manually reconfiguring said printer(s).

5. A method as claimed in claim 1, in which the print job is assigned to more than one printer, and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or otherwise combining material printed from the printers.

6. A method as claimed in claim 1, in which the print job has a plurality of different parts, each part having different printing requirements, and the print job is split according to those different requirements.

7. A method as claimed in claim 1, in which the calculated cost is an economic cost.

8. A printing system, the printing system comprising a plurality of printers and at least one computer connected to said printers, each printer of said plurality of printers having a plurality of different printing configurations and the at least one computer being capable of generating at least one print job, said at least one print job having corresponding printing requirements, the at least one printing configuration being capable of satisfying one or more printing requirements, wherein the printing system is arranged to calculate a cost for printing the at least one print job according to different notional assignments of the at least one print job across one or more of the printers in such a way that said printers have printing configurations that are capable of satisfying the printing requirements, and to select according to the calculated costs a preferred assignment of the or each print job; and wherein each printer has a pre-existing printing configuration and said calculation of the cost includes an assessment of the cost of any needed changes from the pre-existing printing configurations to changed printing configurations so that the printers can satisfy the printing requirements.

Claims 9 - 10. Cancelled.

11. A method of assigning a print job in a printing system, the printing system comprising a plurality of printers and at least one computer connected to said printers, wherein each printer has a plurality of different printing configurations associated therewith and the computer is capable of generating at least one print job, said at least one print job having corresponding printing requirements, each printing configuration being capable

of satisfying the printing requirements corresponding to said at least one print job, the method comprising the steps of:

- i) creating one or more print jobs;
- ii) notionally assigning each print job created in step i) as a notional print job assignment across the printers in such a way that the one or more of the printers have printing configurations that are capable of satisfying the printing requirements of a corresponding print job;
- iii) calculating a cost for printing each print job according to said notional print job assignment;
- iv) repeating steps ii) and iii) at least once for a at least one different notional print job assignment; and
- v) selecting from the notional print job assignments according to the calculated costs a preferred assignment of each print job.

12. A method as claimed in claim 11, in which each printer has a pre-existing printing configuration and wherein said calculation of the cost includes an assessment of the cost of any needed changes from the pre-existing configuration of said at least one printer to a changed configuration for said at least one printer so that the at least one printer can satisfy the printing requirements associated with a given print job.

13. A method as claimed in claim 12, in which said needed changes include manual reconfiguration of at least one printer, said calculated cost then including an assessment of the cost of such a manual reconfiguration.

14. A method as claimed in claim 13, in which the preferred assignment of the printing job requires a manual reconfiguration of at least one printer, in which the printing system after selection of said preferred assignment then presents to a user of the printing system instructions for manually reconfiguring said printer(s).

15. A method as claimed in claim 12, in which the given print job is assigned to more than one printer, and the printing system presents to a user of the printing system instructions for any or all of locating, assembling, collating, binding, or otherwise combining material printed from the printers.

16. A method as claimed in claim 12, in which the given print job has a plurality of different parts, each part having different printing requirements, and the print job is split according to those different requirements.

17. A method as claimed in claim 11, in which the calculated cost is an economic cost.

No evidence is being submitted.

There are no related proceedings.